

**Town of Grafton
Planning Board
November 24, 2014**

Traffic Impact and Access Study

**Proposed Bull Meadow
Residential Development**

**Appaloosa Drive
Grafton, Massachusetts**

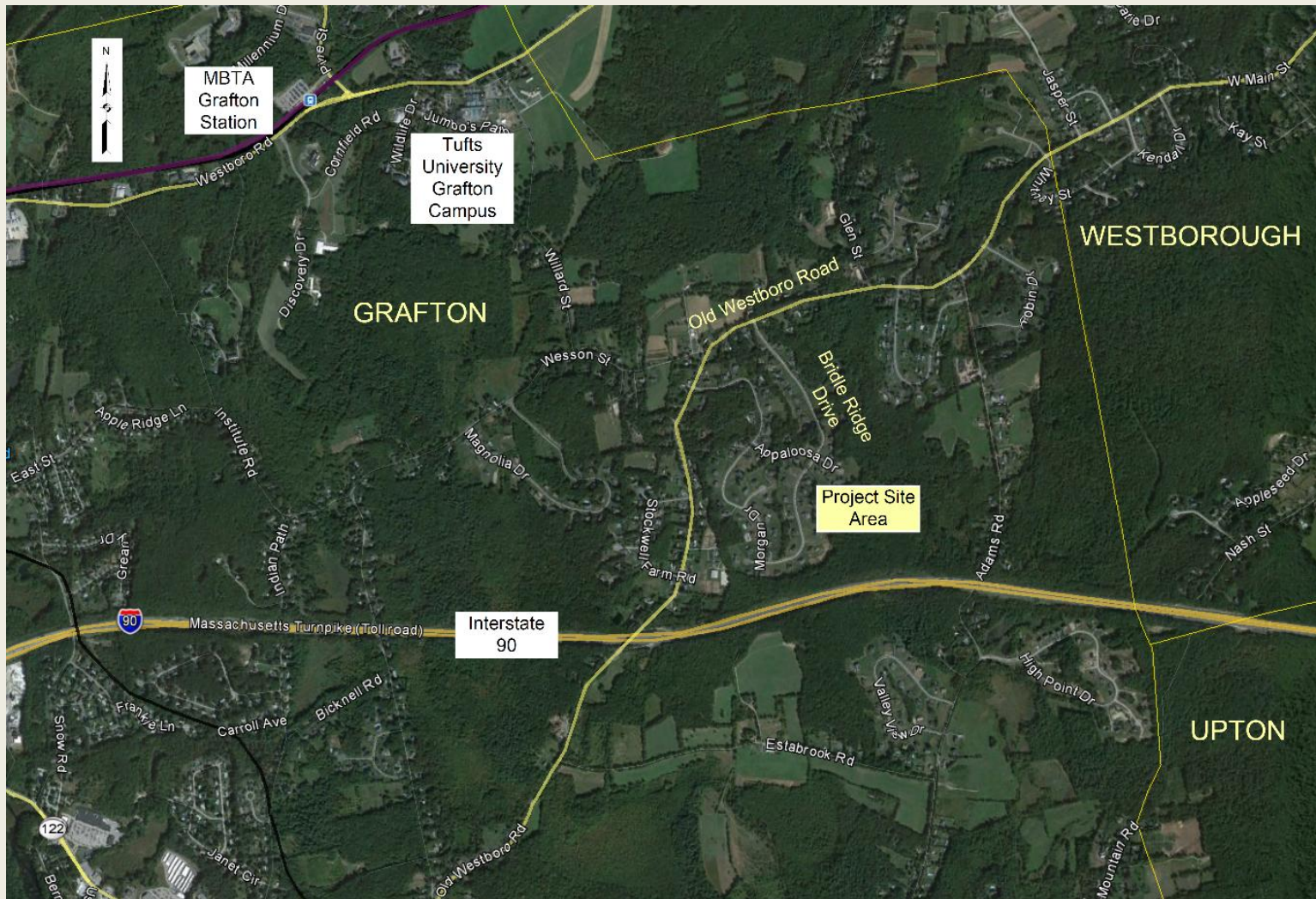


Traffic Impact and Access Study Outline

- **Review Existing Conditions**
 - Roadways/Intersections
 - Traffic Volumes
 - Crash History
- **Future No-Build Conditions**
- **Future Build Conditions**
 - Sight Distance
 - Site-Generated Traffic
 - Intersection Capacity Analysis



Project Area





Existing Roadways



Bridle Ridge Drive

Old Westboro Road





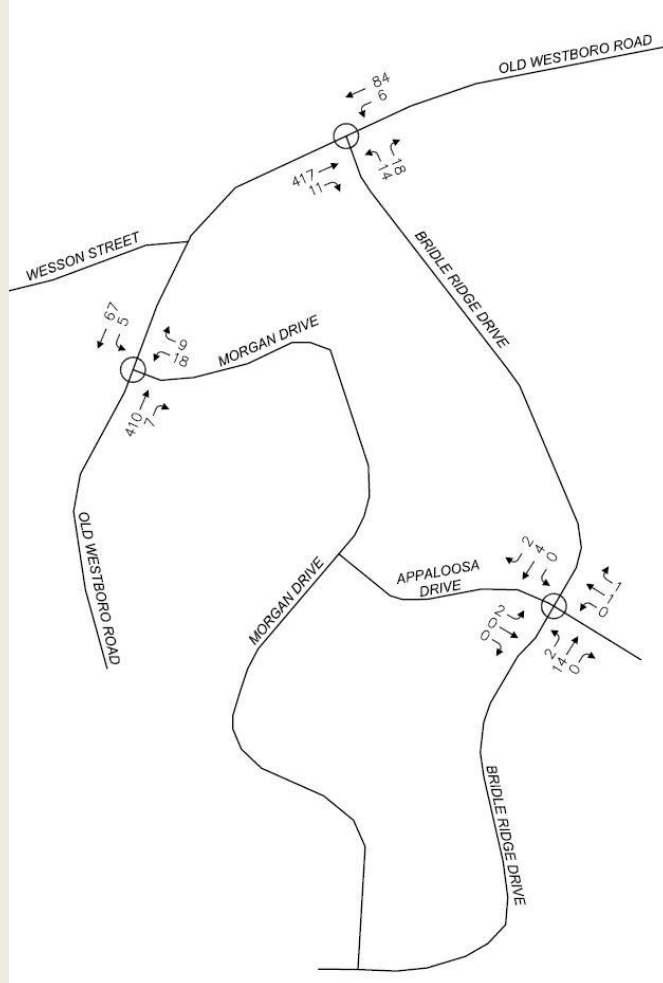
Existing Traffic Volumes

		AM Peak Hour		PM Peak Hour	
Location	ADT	Volume	Percent of Daily	Volume	Percent of Daily
Old Westboro Road, east of Bridle Ridge Drive	4,430	536	12.1%	529	11.9%
Bridge Ridge Drive, north of Appaloosa Drive	230	28	12.2%	29	12.6%

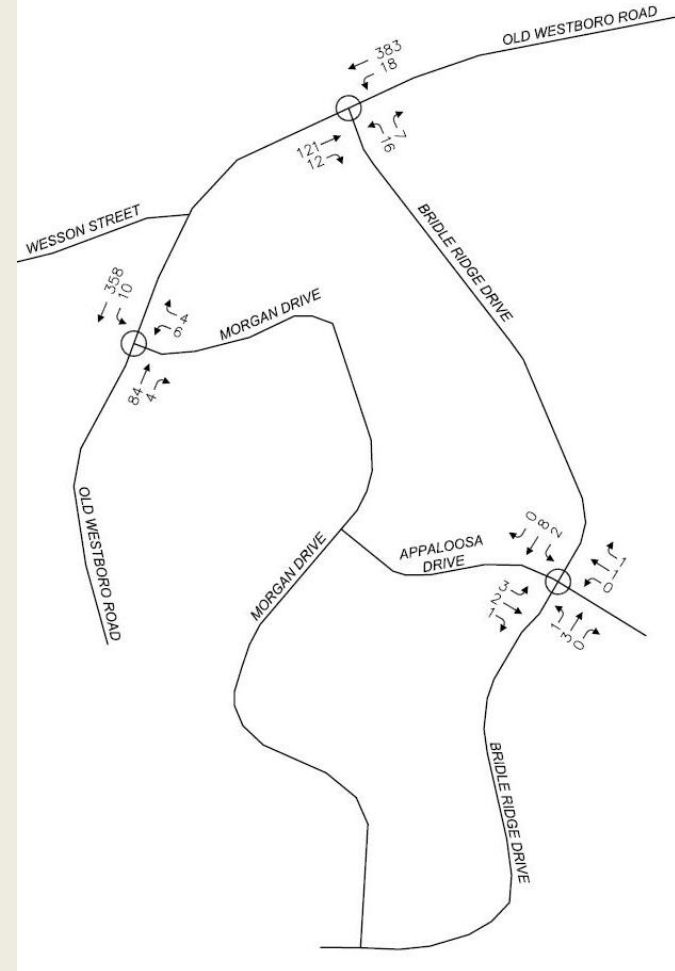


Existing Traffic Volumes

AM Peak Hour



PM Peak Hour





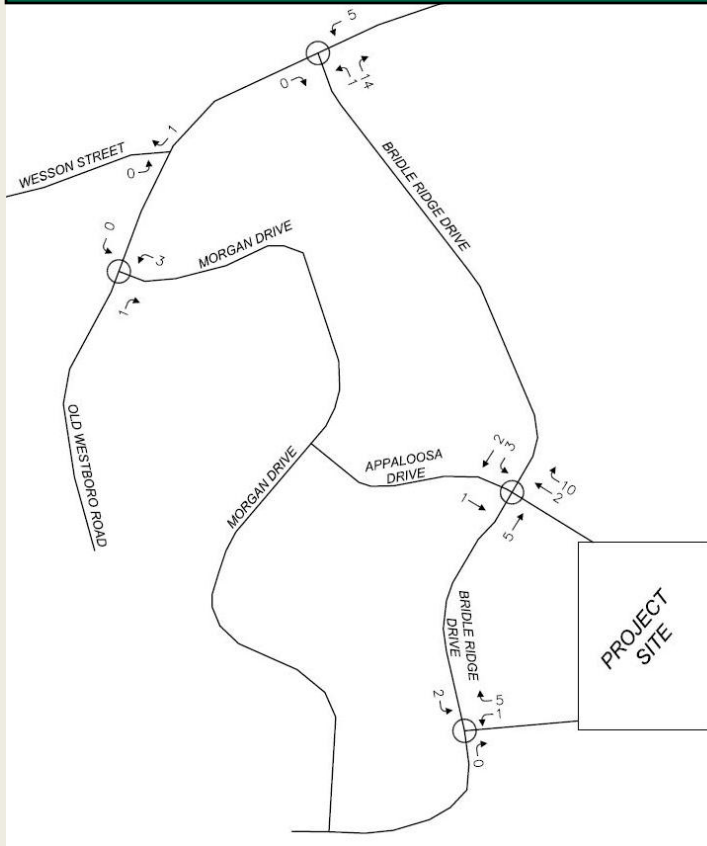
Future No-Build Conditions

- **Background growth rate**
 - 1% per year for 7 years
- **Other Development Projects**
 - Grafton Hills (45 residential units)
 - Grist Mill Village (11 residential units)
 - Cumberland Farms (Millbury)
 - 25 West Main Street (24 residential units, Westborough)
 - Westborough Village (276 residential units, Westborough)
 - Tufts Grafton Campus Expansion



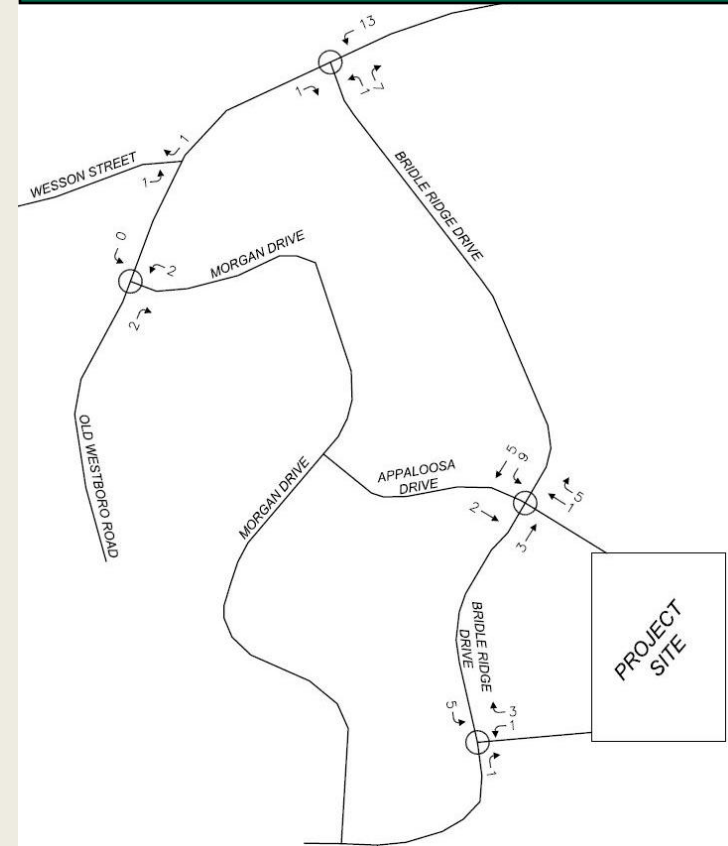
Site-Generated Traffic

AM Peak Hour



- 6 Entering Trips
- 18 Exiting Trips
- 24 Total Trips

PM Peak Hour



- 16 Entering Trips
- 10 Exiting Trips
- 26 Total Trips



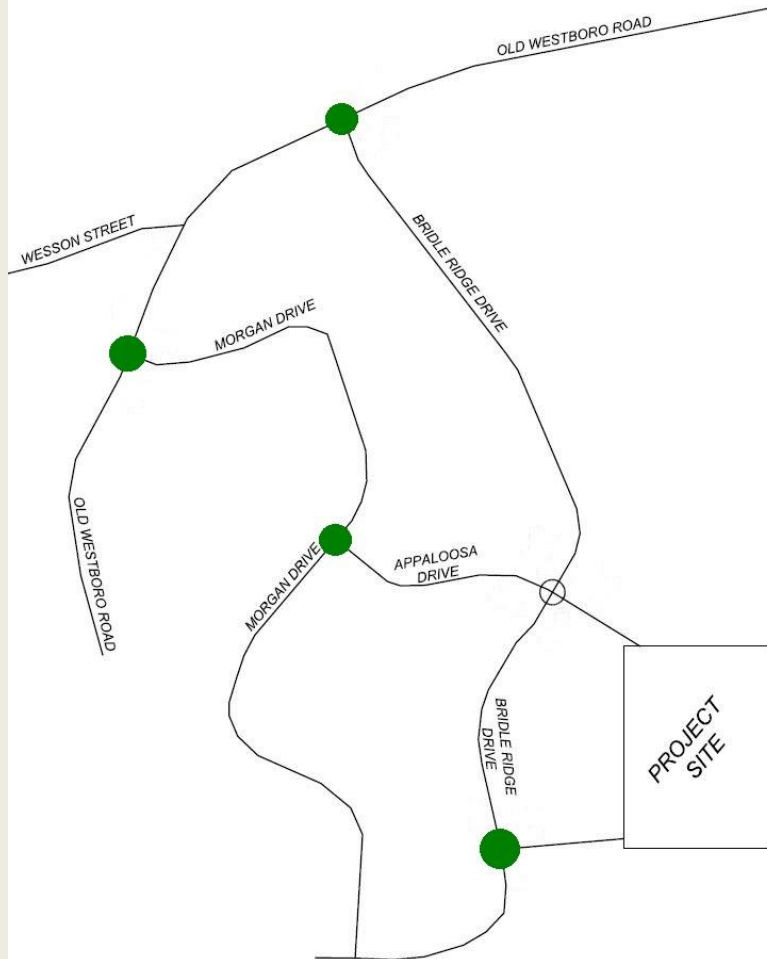
Intersection Capacity Analysis

- **Highway Capacity Manual Methodology**
- **Compared Existing, Future No-Build, and Future Build scenarios**
 - All study intersections currently operate at LOS A/B
 - Project traffic is expected to add <1 second of additional delay at any study intersection
 - No perceptible change in vehicle operations



Sight Distance

Locations



- **Stopping Sight Distance (SSD)**
 - Minimum Required Distance exceeded at all locations
- **Intersection Sight Distance (ISD)**
 - Desirable distances not met at Old Westboro Rd intersections
 - Existing Condition
 - Can be improved by clearing vegetation and greater enforcement of speed limits



Conclusion & Recommendations

- **Negligible impacts to traffic operations**
- **Min. Sight Distances for safety are exceeded**
- **The existing roadway network can accommodate the proposed project**